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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/089,072 | 04/08/2002 | Curt FALK | P67777USO | 6972 |

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EXAMINER

BINDA, GREGORY JOHN

ART UNIT

PAPER NUMBER

3679

DATE MAILED: 09/04/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/089,072

Applicant(s)

FALK, CURT

Examiner

Greg Binda

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Drawings

1. The drawings are objected to as failing to comply with:
 - a. 37 CFR 1.83(a) because the figure fails to show:
 - ✓ i. Oil chamber A as a chamber. Instead the figure depicts chamber A with a line.
 - ✓ ii. A "space which is filled completely by the layer 50" as described on page 5, line 20.
 - ✓ iii. "Means (8) . . . for leading liquid away from the gap (8) so as to re-establish said frictional grip" as disclosed in the abstract on page 8, line 8.
 - ✓ iv. The disclosed invention as described on page 6, lines 5-25.
 - ✓ v. A "liquid storage" as recited in claim 1, line 7.
 - ✓ b. 37 CFR 1.84(h)(3) because surface material 50 is drawn without hatching
 - c. 37 CFR 1.84(p)(4) because:
 - ✓ i. Reference characters "4" and "40" have both been used to designate an oil supply channel (see page 5, lines 4 & 15).
 - ✓ ii. Reference characters "12" and "50" have both been used to designate the surface of the shaft 10 (see page 4, line 31 and page 5, lines 12+).
 - ✓ d. 37 CFR 1.84(p)(5) because reference numeral 8 appears in the abstract but does not appear in the drawings.

Art Unit: 3679

2. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because:

✓ a. Page 1, lines 3 & 4 and page 2, line 31 contain a reference to a specific claim.

The specification should stand on its own without having to rely on the claims to make up for deficiencies.

✓ b. Page 1, line 10 includes an undefined abbreviation, "SEK". See *Machinery's Handbook* as cited in item 14 below.

✓ c. Page 1, line 13 includes the nonsensical frequency range, "once every five years to 300 annually." Is this supposed to mean once every 5 to 300 years? If that is so, then how can the "typical" frequency be twenty times per year as described in line 14?

✓ d. Page 1, line 27 includes the nonsensical phrase "are able to slide relative to one another immediately the set torque is exceeded."

✓ e. Page 4, line last describes a "filling channel" that is not shown, but it is not clear how this channel is different from the oil supply channels described on page 5, lines 4 & 15 which are shown in the figure.

✓ f. It is not clear how oil chamber A (of page 4, line 32) is connected to the oil loop 4-B-41-3 described on page 5, lines 4-9 or the oil loop 40-B-51-41-3 described in lines 16-18.

Art Unit: 3679

- ✓ g. It is not clear if the oil loop 4-B-41-3 described on page 5, lines 4-9 is the same as, or different from the oil loop 40-B-51-41-3 described in lines 16-18.
- ✓ h. Page 5, lines 5 & 15, the word "center" is misspelled.
- ✓ i. Page 5, line 9, "pumps 5" should be changed to "pumps 3".
- ✓ j. Page 5, line 16 states that oil pumped into the center of interface B flows axially to both ends of the interface B. How is that so if, as described in line 20, in that interface there is "a space which is filled completely by the layer 50". Wouldn't this "space filled by layer 50" block the axial flow of oil?
- ✓ k. Page 5, lines 29-32, the sentence that begins, "The net volume . . . " does make sense.
- ✓ l. Page 5, lines 32 & 33 states "This reduces the risk of the material 50 receiving so much energy as to cause the material to melt" However, in lines 27 & 28 the material of the layer 50 is disclosed as "melting". In effect, applicant is stating that the melting of the layer 50 reduces the risk of the layer 50 to melt. (See also page 4, line 7 where "plasticization" and "melting" are disclosed as synonymous terms.)
- ✓ m. Page 5, line last, applicant states the layer 50 normally will not melt but in lines 25-28 the layer 50 is described as normally melting.
- ✓ n. Page 6, lines 1-3 states "plasticization of the material 50 and the displacement of said material [limits] the power transmission between the parts 12, 20 . . . if the pumps 3 are not able to pump oil". Does this mean that power transmission between the parts 10 & 20 will not be limited in spite of plasticization of the layer 50 so long as the pumps 3 are able to pump oil?

Art Unit: 3679

- o. Page 6, line 24, the word “minimized” is misspelled.
 - ✓p. Page 6, line 3 states “if the pumps are not able to pump oil” What would prevent the pumps from pumping oil?
4. The disclosure is objected to as failing to comply with 37 CFR 1.77(c) for failing to include section headings.
5. The incorporation of essential material in the specification on page 4, line 22 by reference to a foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).
6. The specification is objected to as failing to comply with 37 CFR 1.71 and 1.75(d)(1) because the detailed description fails to provide proper antecedent basis for the following claimed subject matter:
- a. Claim 1, line 10: “one part (10) includes a base”
 - b. Claim 1, lines 11 & 12: “a material that has a plasticizing limit which is substantially lower than the plasticizing limit of the material in the co-acting surface”

Art Unit: 3679

- c. Claim 3: "grooves [51] disposed around the circumference . . . of the surface layer"
- d. Claim 6, lines 3+: all limitations therein.
- e. Claim 7: all limitations therein.

7. The abstract of the disclosure is objected to because in line 8 reference numeral 8 is used to identify two different parts and does not appear in the drawings.

Claim Objections

8. The claims are objected to as failing to comply with 37 CFR 1.75(i) because elements of the claims are not separated by line indentation.

9. Claim 3 is objected to because in line 2 reference numeral 50 should be changed to 51.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Art Unit: 3679

a. Claim 1, lines 6 & 7 recites the limitation, "one pump means (3) which, upon relative rotation between the sleeve and the shaft, is driven to pump liquid from a liquid storage to a gap (B)". However, the specification does not describe any type of structure which would cause the pump 3 to rotate upon relative rotation between the sleeve 20 and the shaft 10. Instead the specification at page 5, lines 9 & 10 states "the pumps [3] will be set into operation upon such relative motion" due to the eccentricity of the hub 30 and bearing 5. Clearly the eccentricity of hub 30 and bearing 5 by itself will not cause the pumps 3 to rotate and pump liquid at the onset of relative rotation between sleeve 20 and shaft 10. There must be some prime mover and transmission means connected to pump 3 and/or hub 30 which is actuated by the relative rotation between the shaft 10 & sleeve 20 in order for the pump 3 to be made to pump liquid as claimed.

b. Claim 1, lines 8 & 9 recites the limitation "means (41) are provided for carrying away the liquid from the gap (B) so as to restore the frictional grip after having exceeded the torque limit". However, no such means is described in the specification. The only way the frictional grip can be restored per the specification is through disassembly of the coupling and replacement of the plasticized surface material. See page 4, lines 6-13.

c. Claim 5 recites "said parts [10 & 20] are mutually tensioned radially". There is no description of any structure providing any such tension.

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 3679

13. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. The term "substantially lower" in claim 1, line 12 is a relative term which renders the claim indefinite. The term "substantially lower" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. There is no way to differentiate between an amount that is merely "lower" and another amount that is "substantially lower".

b. Claim 6, lines 5 & 6 recites the limitation "plasticization and/or melting". It is not clear how plasticization AND melting can occur unless they are the same process (as disclosed on page 4, line 7). If that is the case, then how could plasticization occur without melting (i.e. plasticization OR melting).

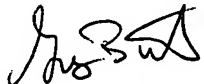
c. Claim 7 recites the limitation "the surface layers" in line 2. There is insufficient antecedent basis for this limitation in the claim since just one surface layer is previously recited.

Conclusion

14. Ermakov et al, Falk, Stiff, Grandia and Greve et al each show a torque limiting coupling means. *Machinery's Handbook* provides a table of abbreviations for standard engineering terms.

Art Unit: 3679

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Binda whose telephone number is (703) 305-2869. The examiner can normally be reached Monday through Thursday from 9:30 am to 7:00 pm. The examiner can also be reached on alternate Fridays. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne, can be reached on (703) 308-1159. The fax phone number is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2168



GREGORY J. BINDA
PRIMARY EXAMINER